

Work Order ID 156942

156942

Page 1

Wednesday, February 08, 2017 10:18:15 AM

Item ID: D3688-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Stud
 Start Date: 1/27/2017 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 2/8/2017 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: DAS Date: FEB 10 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: 21 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***
9-89

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3688	Rev D								
100	BAND SAW	0.00							
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	***DO NOT USE CHOP SAW***								
	Cut blank 9.424" long								
110	DOOSAN LATHE	0.00							
110									
Doosan	Memo	0.00							
Doosan Lathe	1-Turn as per Folio FA717 Rev: <u>N/A</u> & Dwg D3688 Rev: <u>D</u> 2-Deburr per dwg D3688 3-Check .625" bore with DT9530 GO/NO GO Gauge								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	Memo	0.00							
Quality Control									

6 φ 217-3-8

6 φ 217-3-8

6 φ 217-3-8

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER :									

156942

Wednesday, February 08, 2017 10:18:15 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 1/27/2017 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 2/8/2017 **Req'd Qty:** 2.00 ***~***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

0.00

170

B. 17-03-12

6

6

DAS
08
9-85

QC

Memo

0.00

100% CHECK,CHECK ALL DIMENSIONS AND THREAD FIT

0.00

180

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 35625 LPI Per ASTM 1417 LEVEL
2Certificate of conformaty is required

6 MAR 17 2017

Receive & Inspect for Damage & Mat'l Certs

0.00

190

Memo

0.00

Packaging

Ensure certificate of conformity is attached

Lex SPT7-0317

DQA: _____ Date: _____



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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 156942***156942***

Page 3

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200	QC5- Inspect part completeness to step on W/O	0.00							
-----	---	------	--	--	--	--	--	--	--

200

QC

Memo

Quality Control

210

210

Packaging

Packaging

Identify as per dwg & Stock Location: _____ 0.00

Memo

ATTN:
HAVE ALL DEVIATIONS
(W/O CHANGE/NCR) SIGNED OFF PRIOR TO STOCKING
LOCATION : GA

220

220

QC

Quality Control

QC21- Final Inspection - Work Order Release 0.00

Memo

0.00

DAS
38
9-89

MAR 17 2017

DAS
6
9-89

MAR 20 2017

17/3/21

DAS
21
9-89

MAR 20 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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OTHER : ☐									

Picklist Print

Wednesday, February 08, 2017 10:18:15 AM

Page 1

Work Order ID: 156942

156942

Parent Item: D3688-3

D3688-3

Parent Item Name: Stud

Start Date: 1/27/2017

Required Date: 2/8/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: Rev:A New Issue 08-01-29 JLM Verified By:EC
IPP Rev:B Material Change 09-01-07 JLM Verified By:EC
IPP Rev:C Added note on Step 2 09-01-26 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174PH-H900R1.000		Purchased	No			100	f	17.8680	0.788	1.658947			
M174PH-H900R1 000									**				
17-4SS H900 ROUND BAR 1.00													
						<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>			
						MAT031		17.868					
						m128314		17.868					

217-38

4.8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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OTHER :									

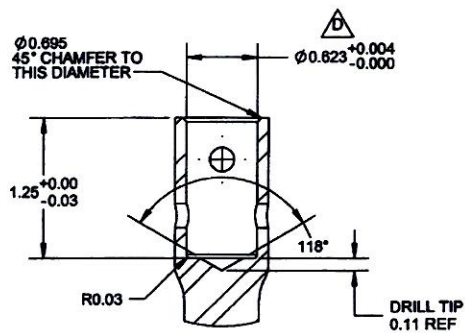
DART AEROSPACE LTD		Work Order: 156942
Description: Stud		Part Number: D3688-3
Inspection Dwg: D3688	Rev: D	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.695	+/-0.010	0.690	✓		VERD	
0.625 0.623	+0.004/-0.000	0.6245	✓			
1.25	+0.000/-0.03	1.237	✓			
118°	0.5°	118°	✓			
R0.03	+/-0.030	R.03	✓			
0.11 Ref	+/-0.030	0.11	✓			
90°	0.5°	90°	✓			
Ø0.189	+0.005/-0.001					
1.31	+/-0.030	1.325	✓			
1.65	+/-0.030	1.650	✓			
0.870	+0.000/-0.010	0.865	✓			
Ø0.659	+0.000/-0.015	0.650	✓		mic	1-4
9.324	+/-0.015	9.324	✓		UPRN	CNC-02
2.90	+/-0.030	2.900	✓			
3/4-16UNF-2A	N/A		✓			
0.075 x 45°	+/-0.010 x 0.5°	0.075 x 45°	✓			
0.370	+0.000/-0.010	0.365	✓			
Ø0.216	+0.005/-0.001	0.216	✓			
R0.25	+/-0.030	R.25	✓			
R0.50	+/-0.030	R.50	✓			

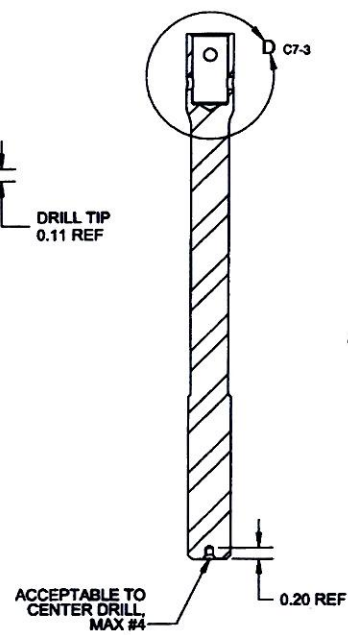
Measured by: JJ	Audited by: De	Preliminary Approval:
Date: 17-3-8	Date: 17-03-12	Date:

Rev	Date	Change	Revised by	Approved
A	09.05.11	New Issue	KJ	
B	09.11.04	Dwg Rev updated	KJ	
C	13.02.27	Ø0.216 was Ø0.189	KJ	

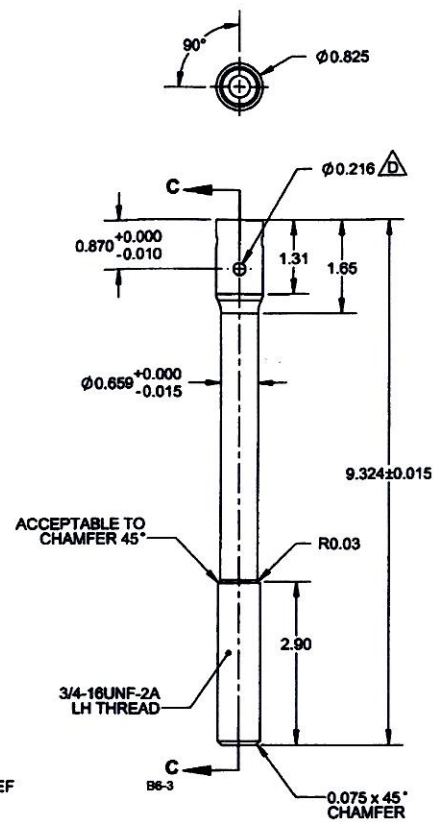


DETAIL D D6-3
SCALE 2X

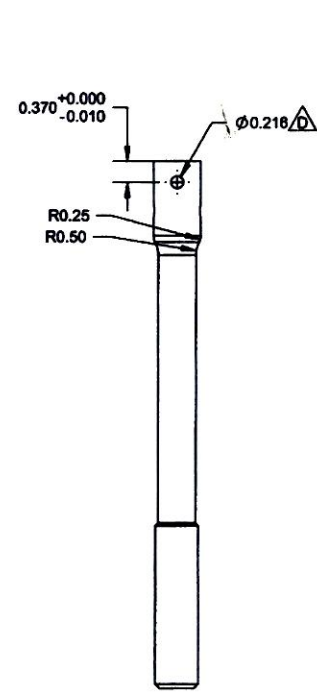
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 156942 MJS
1702-10



SECTION C-C
D4-3



D3688-3 STUD



RELEASED
2013-01-22

- NOTES:**
- 1) MATERIAL: 17-4PH STAINLESS STEEL ROUND BAR PER AMS 5643 H-900 CONDITION
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.97 lb
 - 8) LPI PER QSI 038 4.1.1 (ASTM E1417 LEVEL 2)

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	REV. D
MFG. APPR.	JLM	D3688	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		STUD	NTS
DATE	12.12.05	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRELIMINARY AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO35625**

Purchase Order Date 3/17/2017

PO Print Date 3/17/2017

Page Number 3 of 3

Order From :
SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

VC-SKY001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-678-5636

Ship To Contact
Ship To Phone
Ship Via: Delivered
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

6 156942 D3688-3 STUD 3/17/2017
Yes
3/17/2017

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Line Total: \$200.00

\$5.83 \$35.00

Line Total: \$35.00

PO Total: \$835.00

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 2

Change Date: 3/17/2017



skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO31429	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO35625
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT ON 4 CROSSTUBES AND 6 STUDS AS PER PO35625

6 STUDS, ITEM ID# D3688-3, WORK ORDER ID# 156942

SP17-03-17

1 AFT CROSSTUBE, ITEM ID# D412-664-209, WORK ORDER ID# 154663

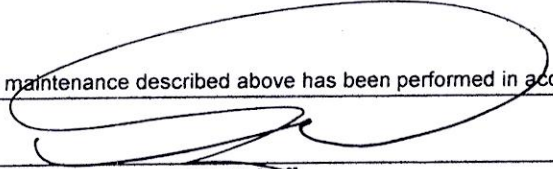
3 AFT CROSSTUBES, ITEM ID# D212-664-201, WORK ORDERS ID# 157962, 157963, 157964

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-13						MAR 17 2017	 DOT APP 20 53-89
NO CRACK FOUND							
PEN. ZL-56, MPO13600, CLEANER SKC-S MPO13923, EMU. MPO15896, DEV. MPO11715, UV LIGHT M-20142							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

DAS
38
9-88

MAR 17 2017

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: RAFIK MELIKIAN	 DOT APP 20 53-89	MAR 17 2017